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Activities of the United Nations system in the field of water and mineral resources, and inter-agency coordination focusing on progress made towards achieving sustainable development

Technical cooperation activities of the United Nations system in mineral resources

Report of the Secretary-General

Summary

The present report, prepared in response to Economic and Social Council decision 1996/306, summarizes and describes the activities of United Nations bodies and the specialized agencies in the area of mineral resources. It covers activities with regard to, *inter alia*, the environment; issues related to the social and economic impact of the mining sector, especially in developing countries and economies in transition; and a global knowledge base on mineral resource potential.

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Contents

		Paragraphs	*Page*
I.	Introduction	1–4	3
II.	The United Nations system and mineral resource development	5–18	3
	A. Technical cooperation activities of United Nations bodies	5–7	3
	B. Measures taken in response to Agenda 21 and the Copenhagen Declaration on Social Development	8–9	4
	C. Coordination and integration of activities	10–18	4
III.	Activities in other areas of mineral resource development	19–41	5
	A. Issues related to the social and economic impact of the mining sector, especially in developing countries and economies in transition	19–30	5
	B. Technical cooperation activities	31–41	8
IV.	Global knowledge base on mineral resource potential	42–50	9
	A. Economic Commission for Africa	42–43	9
	B. United Nations Conference on Trade and Development	44–46	10
	C. Economic and Social Commission for Asia and the Pacific	47–50	10
V.	Current issues and recommendations	51–54	11

I. Introduction

1. The Economic and Social Council, in its decision 1996/306 and upon the recommendation of the Committee on Natural Resources at its third session (6-16 May 1996), adopted the provisional agenda and documentation for the fourth session of the Committee, which includes a report of the Secretary-General on the technical cooperation activities of the United Nations system in the field of mineral resources, to be submitted to the Committee at its fourth session. The Committee had recommended that the report focus on the basic problem of improving the capacity of developing countries and economies in transition to capture the maximum economic and social benefits of their potential for mineral production.

2. The present report assesses the technical cooperation activities of the United Nations system in the field of mineral resources undertaken since the previous report of the Secretary-General was issued (E/C.7/1996/7). That report paid particular attention to the changes made by the United Nations system in the field of mineral resources in response to Agenda 21.[1] It also discussed activities in mineral resource development in areas of privatization, investment promotion, and small-scale and artisanal mining.

3. The present report includes general comments from the Economic Commission for Latin America, the Economic Commission for Africa, the Economic and Social Commission for Asia and the Pacific, the United Nations Revolving Fund for Natural Resources Exploration and the United Nations Conference on Trade and Development.

4. The report is structured as follows: section II provides a brief summary of the activities of United Nations bodies in the field of mineral resources, reports on measures taken by the United Nations system in response to Agenda 21 and the Copenhagen Declaration on Social Development,[2] and describes the coordination and integration of activities. Section III describes activities in other areas of mineral resource development. Section IV discusses the global knowledge base on mineral resource potential. Section V covers current issues in mineral resource development and the focus of future activities, and offers conclusions and recommendations for the direction of future work for consideration by the Committee.

II. The United Nations system and mineral resource development

A. United Nations bodies participating in technical cooperation activities in the field of mineral resources

5. Within the United Nations Secretariat, the Department of Economic and Social Affairs is the principal United Nations office responsible for the implementation and coordination of technical cooperation activities in the field of mineral resource development. Also involved in the execution and finance of regional projects, through grants of technical cooperation assistance, are the following regional commissions: Economic Commission for Africa (ECA), Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP) and the Economic and Social Commission for Western Asia (ESCWA). The United Nations Conference on Trade and Development (UNCTAD) is mainly concerned with mineral economics and trade in primary commodities, while its Programme on Transnational Corporations assists Governments in their relations with transnational corporations.

6. The United Nations programmes involved in technical cooperation activities in mineral resources, primarily in a financing capacity, are the United Nations Development Programme (UNDP), which finances technical cooperation activities in all aspects of mineral resource development; the United Nations Revolving Fund for Natural Resources Exploration, which was established to provide an additional source of exploration financing for countries not adequately covered by other sources, and the United Nations Environment Programme (UNEP), which finances mineral resource activities related to environmental protection.

7. The United Nations Educational, Scientific and Cultural Organization (UNESCO) provides assistance for formal academic training, the establishment of schools of geology, and certain research programmes. The United Nations Industrial Development Organization (UNIDO) assists in developing mineral-based industrial processing operations. The International Labour Organization (ILO) participates in technical cooperation relating to work conditions and worker safety in mineral resource extraction, encompassing all levels of mining. The International Atomic Energy Agency (IAEA) is involved in regulating and giving limited assistance for the exploration of nuclear raw materials. Finally, the World Bank and its affiliate, the International Finance Corporation, provide grants and soft

loans for technical cooperation activities and project financing.

B. Measures taken in response to Agenda 21 and the Copenhagen Declaration on Social Development

8. During its third session the Committee noted that special consideration needed to be given to sustaining the social and economic development of local communities after termination of a mining project. It also urged Governments to ensure participation in decision-making by all parties involved at each stage of mineral project development.

9. In light of the spirit of the Copenhagen Declaration, the United Nations bodies participating in the technical cooperation activities in mineral resources have reoriented their activities. Their reformulated policies place increasing emphasis on the sustainability of mineral development projects by actively promoting a constructive dialogue between communities, industry and Governments so that the interests of all stakeholders are taken into consideration and by emphasizing capacity-building and the training of those involved. At the same time, in implementing chapter 10 of Agenda 21, "Integrated approach to the planning and management of land resources", they have continued to place increasing emphasis on and give priority to environmental protection and to assist developing countries and economies in transition to develop their mineral resources using environmentally sensitive technologies.

C. Coordination and integration of activities

10. During the six years since the adoption of Agenda 21, in assisting countries to develop their mineral resources, the United Nations system has adopted a crosssectoral approach which integrates economic, environmental and sustainable development policies into all aspects of mining and mineral processing and utilization activities.

11. At the special session of the General Assembly to review and appraise the implementation of Agenda 21, held in 1997, Member States reaffirmed their belief that, if sustainable development was to become a reality through the integration of economic, environmental and social policies, the implementation of Agenda 21 in a comprehensive manner remained vitally important and was more urgent than ever. Agenda 21 emphasized the need for the adoption of environmental guidelines for natural resource development. Both the Natural Resources and Environmental Management Branch of the Department of Economic and Social Affairs and UNEP were requested by a number of developing countries to provide environmental guidelines for the mineral sector. UNEP and the Department jointly prepared and recently published "Environmental guidelines for the mineral sector" (ST/TCD/20).

12. The environmental guidelines for mining operations address regulatory frameworks, environmental impact assessments, environmental management agreements, environmental management programmes, environmental monitoring programmes, mine site rehabilitation, pollution control, recycling and waste disposal issues, mine site decommissioning, training, and corporate incentives. They include relevant examples of environmental management practices and regulations from various mining countries. (The examples necessarily reflect the legal and administrative contexts in the countries from which they are drawn.)

13. In the field of environmental management of mining operations, ESCAP and UNCTAD collaborated in the compilation of a regional study on environmental policies, regulations and management practices in mineral resource development in Asia and the Pacific. In cooperation with UNCTAD, two regional seminars were held in Indonesia and Viet Nam on major issues pertaining to the environmental management of mineral resources.

14. The Department of Economic and Social Affairs also collaborated with UNEP and Istanbul Technical University to convene an interregional seminar in Turkey to address the issue of community participation in the environmental management of tailing dams of previous metal mining.

1. Department of Economic and Social Affairs, United Nations Secretariat

15. With the increasing emphasis on implementing the goals of Agenda 21 and the principles of the Rio Declaration on Environment and Development,[3] the Department has been involved in the following activities in mining and the environment: drafting of environmental laws and policies for the mining sector, environmental regulations for small-scale mining, environmental education and raising awareness in local communities. Environmental management tools include environmental impact assessments, environmental audits, the promotion of conservation and recycling of mineral resources, and reclamation/rehabilitation and capacity-building for environmental management in relation to mineral development. The Department conducted a workshop/training programme on environmental management in the mineral resource sector in Mozambique,

at the request of the Government, at both the national and provincial levels. The workshop covered environmental management policies and tools such as environmental impact assessments, environmental audits, environmental monitoring, and evaluation and enforcement, which are important in furthering capacity-building. Participation in environmental planning and management is clearly mandated by Agenda 21, which unequivocally states that decisions should be taken as close as possible to the levels of society which they affect. In accordance with the Copenhagen Declaration, which reiterates the importance of governance through a participatory, transparent and accountable administration, the workshop addressed participatory approaches to all aspects of sustainable human development in the mineral resource sector and approaches to environmental problems in the mineral resource sector: command and control regulations, economic instruments, industry self-regulation, community regulations, and mixed approaches.

2. Economic Commission for Africa

16. In 1997 ECA began a study on productivity evaluation, environmental impact, and health and security risks of small-scale mining activities. The objective is to compare a number of countries in Africa and other developing regions with a view to making recommendations on guidelines and regulations related to environmental protection and restoration. The recommendations will form a basis for determining the models and instruments to be used by member States to promote sustained small-scale mining. The study is scheduled to be completed by November 1998. ECA has also continued to assist member countries in other aspects of small-scale mining, with particular emphasis on environmental issues. It has pursued its assistance to Equatorial Guinea by strengthening institutional and legal frameworks to increase the output of small-scale mines with less pressure on the environment. ECA prepared a study for the integrated development of the Liptako-Gourma region, including Burkina Faso, Mali and Niger. The study included a special chapter on environmental issues and made recommendations for promoting rational, artisanal and small-scale gold mining in the subregion.

3. United Nations Conference on Trade and Development

17. Several analytical studies have been carried out on the environmental management of mining, including four case studies on environmental management in the gold, bauxite and aluminum industries in Brazil, Ghana, Indonesia and Zimbabwe. A survey has been published on environmental legislation in selected countries in the Asia/Pacific region. A report, published jointly with ESCAP in 1997, summarizes the results of workshops on environmental management organized by UNCTAD in cooperation with ESCAP.

4. United Nations Revolving Fund for Natural Resources Exploration

18. From the viewpoint of the changing world of the mining industry and the role of the United Nations system therein, the United Nations Revolving Fund for Natural Resources Exploration will, in the area of environmental protection, focus on strategic workshops and research on environmental issues in order to clarify the role of the Fund and establish sound policy on mining-related pollution. It will also develop and implement projects for mitigating environmental degradation in mining-related pollution.

III. Activities in other areas of mineral resources development

A. Issues related to the social and economic impact of the mining sector, especially in developing countries and economies in transition

1. Economic Commission for Africa

19. ECA has addressed the problem of improving the capacity of African countries to capture the maximum sustainable economic and social benefits from their mineral resources in two areas: increased investment flows, and the promotion of effective cooperation in the sector. The issue of increased investment flows was considered in the global context of liberalization characterized by privatization. In 1996, a high-level expert group meeting was called to consider, on the one hand, the conditions under which the private sector could optimize its contribution to natural resources and energy development in Africa and, on the other hand, the legal and regulatory environment which would make the exercise beneficial to national economies and people alike. The experts identified essential criteria that should be taken into account in national policy-making so as to enhance private-sector participation so that privatization and deregulation could be effected in line with Africa's social and economic priorities. On the question of cooperation, the secretariat convened in November 1997 the second meeting of the regional Conference of African Ministers responsible for the Development and Utilization of Mineral and Energy Resources. The meeting, held in

South Africa, discussed the theme of strengthening cooperation among development partners in order to achieve sustainable development and use of mineral and energy resources in Africa.

2. Economic and Social Commission for Asia and the Pacific

20. At its fifty-third session in April 1997, ESCAP noted that the substantial increase in mining activities in the Asia and Pacific region, especially in the developing countries, had brought to the fore the social impact of mining activities on local communities. In the past, the exclusion of host communities from the planning process and from the economic benefits arising from mining activities and the environmental degradation resulting from such activities sometimes led to conflicts between host communities, Governments and mining companies. Issues such as disparities in socio-economic conditions between the mine workers and host communities, the transfer of skills to local people, and traditional land use practices are beginning to be addressed. The Commission noted the need for assistance to member countries in examining new policy directions for harmonizing mining activities with the aspirations of host communities. Although increased involvement of the private sector in mining should be encouraged, government should act as catalysts so as to ensure that all relevant issues are addressed.

3. United Nations Revolving Fund for Natural Resources Exploration

21. The exploration of minerals by the Fund will focus mainly on deposits appropriate for small-scale mining in the socially and economically less stable developing countries. The Fund intends to step in where private mining companies are not willing to explore in spite of high mineral potential.

4. United Nations Conference on Trade and Development

22. In recent years UNCTAD's work on the economic and policy analysis of mineral-related problems has focused on the economic development policies of mineral-dependent countries and on governance issues. The UNCTAD secretariat has prepared several studies on governmental policies aiming to enhance the contribution of the mineral sector to economic development in developing countries, assessing how the mineral sector influences and is influenced by the general macroeconomic environment. These studies, which influenced case studies on the Dominican Republic, Indonesia and Peru, were motivated by the disappointing economic performance of most developing economies with mineral deposits. In 1996, at the invitation of the Secretary-General of UNCTAD, an ad hoc meeting of experts carried out an in-depth review of economic policies in countries dependent on exports of goods based on natural resources. A report on the discussions was issued as an UNCTAD document; a fuller version will be published in 1998. UNCTAD has also carried out research and analytical studies on governance issues for the mineral sector, including aspects such as foreign investment regimes, the role of State-owned enterprises and privatization, and taxation systems for mining and environmental management for the mineral sector. A report published in 1997, "Management of commodity resources in the context of sustainable development governance issues for the mineral sector" summarizes UNCTAD's work.

23. A relatively new area of work is the relationship between the development of local communities and mining and the problems of how to integrate the concerns of all parties into regional development planning. UNCTAD organized a workshop on this subject in Indonesia in 1996. The proceedings have been published. UNCTAD intends to emphasize the management of commodity resources in the context of sustainable development and the social impacts of mining in all of its technical assistance activities. It is undertaking a major project on sustainable mineral development and local communities. The project aims to enhance the capacity of developing countries to address sustainable development issues when natural resources are exploited for commodity production. It is intended to:

(a) Devise a model framework to assist in the analysis and management of natural resource issues;

(b) Promote the use of the framework in individual developing countries with the support of national and regional institutions;

(c) Provide training on tools, techniques and methodologies to support a cooperative approach to sustainable development, involving all stakeholders, particularly local communities.

The training portion will focus on strengthening capacities for participation in decision-making. The objective is to provide the techniques and methods necessary to assist local and national agencies in the assessment of the environmental and socio-economic impacts of alternative strategies of resource management. A first pilot project has been initiated in South Africa, where UNCTAD is cooperating with the government of Northern Cape Province in exploring development alternatives for the Namaqualand region, which

is heavily dependent on diamond mining and which is faced with the exhaustion of diamond deposits in about 10 years.

5. Economic Commission for Latin America

24. Advisory missions were fielded to prepare legislation codes for mining, energy, water and marine resources. A comparative analysis of legislation on natural resources and energy of the region was carried out.

6. Department of Economic and Social Affairs, United Nations Secretariat

25. The Department of Economic and Social Affairs, in addition to being involved in the technical cooperation and capacity-building activities described above, is pursuing activities that seek to :

(a) Enhance the contribution of artisanal and small-scale mining to the economic and social development of local communities;

(b) Sustain the social and economic development of local communities after the termination of capital-intensive mining projects with a finite and relatively short operational life;

(c) Reform small-scale mining to formalize economic activities and increase their access to international financing institutions and multinational mining companies;

(d) Develop policies to identify the possible negative social impacts of privatization of State-owned mineral assets and innovative privatization plans to ensure the continuation of the economic and social functions performed by State enterprises;

(e) Redirect the profits from minerals development to economic and social benefits;

(f) Structure new community/corporation relationships for social development.

26. The Department has been active in conceiving and implementing projects in various countries seeking to harmonize socio-economic development with environmental protection. It has formulated a multidimensional strategy against poverty in Burkina Faso, centred on an integrated approach to small-scale mining development. The aim is to transform artisanal mining into an instrument of sustaining human development.

27. The Department presented a paper on the contribution of small-scale mining and energy to poverty reduction and perspectives for technical cooperation in Africa at the second Conference of African Ministers Responsible for the Development and Utilization of Mineral and Energy Resources, in November 1997. The paper dealt with methodologies for eradicating poverty and sustaining economic growth. In 1997, the Department participated in the Washington Roundtable on Mining: the Next 25 Years, which was convened by the World Bank. One of the main objectives of the Roundtable was to examine ways in which international development institutions might help promote sustainable mining development.

28. In 1997 the Department undertook a study on the socio-economic implications of privatization of State-owned mineral assets in developing countries. The study dealt with the impacts of privatization in some developing countries and suggests ways to reduce the negative impacts. The Department's paper on mining policies and the law in three Asian countries in transition, presented at the Conference of the Mineral Economics and Management Society, in Colorado in 1997, dealt with three countries in transition in which the mining sector plays an important role in the national economy. For both industry and government the primary challenge for the future will be how to privatize national mining companies and meet the needs of industry for profit and stability, while allowing Governments to acquire "adequate economic rent" from privatized development to ensure sustainable development for its citizens. The paper underscored the importance of a new tripartite partnership between government, industry and community. The Department organized a symposium in May 1996 on corporations, communities and sustainable social development which brought together the private sector, government representatives, non-governmental organizations and international organizations to examine specific experiences in the mineral sector. The Department also convened a meeting with the representatives of large mining companies and non-governmental organizations in February 1997, which highlighted future areas of public/private partnership in mineral development and sustainable human development. It was decided that the Department would collaborate with the private sector and local communities to carry out the case studies on Government/industry interface in the mining sector which the Department has recently initiated.

29. The advisory services of the Department focused on the formulation and implementation of national environmental policies and laws (in Mozambique and Cameroon) which maximized the contribution of the private sector through economic incentives and instruments and the participation of non-governmental organizations and local communities in monitoring and implementation. The advisory services to Governments relate to the special needs of small-scale mining and mining in the informal sector and

integrating women into all aspects of the mineral development process and related training processes. In the area of natural resources the Department has collaborated with the United Nations Development Fund for Women (UNIFEM) to promote gender-sensitive approaches to mineral resources management. It participated in the workshop for women small-scale miners, held in 1996 in Zimbabwe, which resulted in the creation of the Women's Miners Association of the South African Development Community.

30. Capacity-building in the natural resources sector is being addressed by the Department in several ways:

(a) Assisting developing country Governments to initiate formal institutional capacity for the integrated management of mineral resources by women and other affected communities;

(b) Drafting new mining/petroleum laws for developing countries and building capacity in monitoring and enforcement by the relevant agencies and institutions;

(c) Developing enabling mechanisms for full and effective participation by local communities in the sector at all stages of a project;

(d) Utilizing national expertise for project implementation, keeping in mind that local capacity is the key to sustainable social development;

(e) Holding workshops/training programmes at both national and provincial levels for those engaged in small-scale mining and artisanal mining activities in the use of environmentally sound technology.

B. Technical cooperation activities

31. The Department's other technical cooperation activities include a mineral sector development project in the Lao People's Democratic Republic, which is now being successfully completed. The overall objective of the project is to promote the development of the country's mineral sector in an environmentally sound manner by strengthening the geological survey and the mining concession divisions, thereby contributing to national economic growth. The project has resulted in improvements in the technical and professional capacity of the country's geo-science.

32. In India, a project for the development of the gemstone resources of Orissa state has recently been completed. The project aimed at assessing the gemstone prospects of Orissa; optimal recovery of the stones, through appropriate mining and processing techniques; establishment of a modern gem-testing laboratory; and upgrading the knowledge, skills, and expertise of the host Government's technical personnel via training in state-of-the-art techniques.

33. Another project in India involves the establishment of a mineral processing laboratory at Nagpur. The project aims to accelerate the expansion of India's mineral industry through the application of improved technology for the recovery of minerals from complex and low-grade ores.

34. The Government of Chad, with the support of UNDP and the Department, has promoted the development of the country's mineral sector. Laboratory equipment for gold analysis and training of nationals in its use were provided. In addition, a workshop in contract negotiations was organized in December 1997.

35. In Niger the results of a recently completed project were the following:

(a) Production of a geological and metallogenic map and an aerial geophysical survey over 4,750 square kilometres, and dissemination of information on gold deposits in the Liptako area;

(b) Fully equipped government services for mineral exploration and training of staff in the use of equipment;

(c) Modernization of a laboratory for chemical analyses;

(d) Organization of an international round table for the promotion of the gold potential of the Liptako area. After the round table was held, 13 mineral agreements were signed with multinational companies.

The Ministry of Mines, Industry and Technology is now capable of formulating a rational mineral development plan and programming mineral exploration in other areas of Niger.

36. The Department has also carried out extensive technical cooperation activities to upgrade the minerals sector in the Atakpame region of Togo. The work led to the discovery of valuable mineral deposits and to mineral concessions awarded to private companies. The Department is also assisting the Government of Mali in a project to promote and develop small-scale mining activities and to train nationals in environmental protection. In particular, the project is aiming at reducing poverty, creating employment, managing natural resources and the environment and integrating women into the development of the country.

37. The Department is supporting a project in Fiji to help establish a viable mining industry. The Government seeks to strengthen its institutional capacity to manage all aspects of the mineral sector, including how to avoid adverse

environmental consequences. The Department had fielded a resource policy adviser to Fiji who will provide the impetus for the establishment of a mining development coordinating unit, with particular emphasis on the Namosi project, and develop long-term strategies for the mineral section.

1. Economic and Social Commission for Asia and the Pacific

38. ESCAP continued to assist the developing countries and economies in transition in the region, especially those in Indochina, North-east Asia, and Central Asia, in the assessment and development of mineral resources, in particular in policy reorientation and institution-strengthening for the promotion of foreign direct investment (FDI) in exploration, mining and mineral-based industries. The secretariat provided advisory services to the Governments of Armenia, Azerbaijan, Bangladesh, Cambodia, Kyrgyzstan, Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, the Islamic Republic of Iran, Solomon Islands, Sri Lanka, Vanuatu, and Viet Nam to review legal and fiscal regimes and related regulatory and institutional frameworks for enhancing FDI flows and to identify major exploration targets for the assessment and development of commercially exploitable mineral deposits.

2. United Nations Conference on Trade and Development

39. As part of its technical assistance programme, which is funded by contributions from UNCTAD member States and UNDP, UNCTAD organizes training courses, particularly in the areas of governance, environmental management, socio-economic impacts of mining and risk management for minerals and metals industries. Several courses are provided each year.

40. In order to support its training programmes, UNCTAD intends to publish a manual on mining, the environment and development in the first half of 1998. The manual, which will also be issued as an UNCTAD publication, will deal with international aspects of mining, including international law and the nature of the international mining industry, national policies and the environment.

3. United Nations Industrial Development Organization

41. In recent years UNIDO has been involved in activities that are focused on environmental concerns in artisanal and small-scale mining. The subsector provides the means of subsistence to a larger number of people than does formal large- and medium-scale mining worldwide. As a result, with a few exceptions, artisanal gold mining is haphazard, unregulated and environmentally unsound, especially because of the excessive use of mercury and the release of toxic metal into the environment. UNIDO's assistance in avoiding mercury pollution has been requested by more than 10 developing countries. Programmes addressing the issue of mercury pollution have been prepared by UNIDO for Chad, Cameroon and the Philippines. An expert group meeting for developing strategies to combat mercury pollution emanating from artisanal mining was held at UNIDO headquarters. A project focusing on the training of government officials, the offices of mining associations and artisanal miners is currently under way in the United Republic of Tanzania. Furthermore, assistance was provided to Namibia in the implementation of its mining code.

IV. Global knowledge base on mineral resource potential

A. Economic Commission for Africa

42. ECA made a firm decision to use new information technologies under the African Information Society Initiative. The secretariat's objective is to help member States to locate, from the flow of information available, information and data on mineral resources. ECA is also, in consultation with regional economic groupings and intergovernmental institutions, promoting the organization of member States' databases into subregional and regional networks.

43. To facilitate the sharing of information and data, the following are being published: a biannual information newsletter on mineral resources and energy; a statistical annex on mineral resources and energy production and consumption patterns, to be utilized by the *African Economic Report*, published annually; and a biannual survey on economic and social conditions in Africa. It is expected that issuance of up-to-date information and data, on a regular basis, will facilitate the sharing of information and experience among African countries and also generate greater international awareness of developments in the African mining sector.

B. United Nations Conference on Trade and Development

44. The main publication of UNCTAD in the field of information on minerals and metals is the annual *Handbook of World Mineral Trade Statistics*, which includes data for all countries on imports and exports of the 15 most important metals, from ores and concentrates to semi-fabricated products, and on the 12 most important non-metallic minerals. It also includes summary tables on total world trade in minerals and metals and the value of mineral production. The *Handbook* is based on national statistics, which the UNCTAD secretariat reviews in order to ensure consistency of definitions and eliminate errors. The 1997 issue, containing data up to and including 1996, was published in December 1997. UNCTAD also produces the monthly *Commodity Price Bulletin* which includes price data for the most important metals.

45. UNCTAD also produces reviews of industry and market developments regarding individual minerals and metals. A number of studies were prepared in 1996 on the implications for the aluminum, copper and nickel markets of the outcome of the Uruguay Round. A review of changes in production capacity for bauxite, alumina and aluminum is prepared on an annual basis. In addition, reviews of developments in the market for iron ore are published twice a year under a trust fund project financed by several member Governments and the European Union.

46. In order to contribute further to the dissemination of high quality information concerning the minerals and metals industries, UNCTAD is launching the Mineral Resources Forum in early 1998. The Forum will be an Internet Web site designed to promote and enhance the role of mineral resources in sustainable development. It will provide access to information in 12 subject areas, including economics, environment, investment and statistics, and will contain news, documents, library catalogues, discussion groups and references to related Web sites.

C. Economic and Social Commission for Asia and the Pacific

47. Continuously since 1985, ESCAP has carried out activities to identify the mineral resource potential of the region. The following countries have been studied under the ESCAP mineral atlas series: Afghanistan, Bhutan, Cambodia, Kyrgyzstan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, Republic of Korea, Solomon Islands, Sri Lanka and Viet Nam. Booklets in the series are accompanied by small-scale (1:1,000,000-1,500,000) geological and mineral distribution maps and contain a broad overview of major tectonic and structural units and a description of their stratigraphy, magmatism and associated metallogeny. They provide information on mineral deposits and occurrences, either metallic or non-metallic; distribution patterns; geographical location; contained commodities; and reserves and their relation to their geological environment and other characteristics. The most recent booklets contain an overview of the current state of the mining industry and the regulatory governmental framework for the development of the mineral sector and an index of mineral deposits and occurrences. UNCTAD also publishes commodity studies on fertilizer minerals, oil and gas, tin, tungsten, mineral sands, industrial minerals, epithermal gold and base metal mineralization.

48. Knowledge of mineral resource potential at the subregional level ranges from the geological perspective, the status of systematic geological mapping and mineral exploration programmes to the maturity of the mining industry and governmental policies on access to data. Information on regional and subregional resource potential is generally collected by Governments through their participation in mineral-related conferences, meetings and forums convened by United Nations agencies, intergovernmental organizations and the private sector.

49. ESCAP is planning to conduct two subregional projects on mineral resources assessment, using GIS for the countries of North-east Asia and the Greater Mekong region.

50. The Workshop on Sustainable Minerals Supply in the Asia and Pacific Region, held in Bangkok in November 1997, recommended that ESCAP, in conjunction with the International Trade and Commodities Division of UNCTAD, should convene two workshops – one for formulating regional, bilateral or multilateral policy initiatives for enhancing trade and development in minerals and mineral-based products; and one on the establishment of a standardized format for the classification and reporting of mineral occurrences, resources and reserves for the Asian/Pacific region. Also, in conjunction with the International Trade and Commodities Division of UNCTAD, ESCAP should convene a seminar on the non-metallic mineral-based industries and trade for the Asian/Pacific region. The workshop also urged ESCAP to act as a focal point for disseminating information on non-metallic mineral-based industries and on research and development among the relevant organizations in member countries, and to assist member countries in conducting national training programmes for governmental officials to improve their

capabilities in negotiating mineral investment agreements with the private sector.

V. Current issues and recommendations

51. Since the United Nations Conference on Environment and Development, and its adoption of Agenda 21, and the World Summit on Social Development, and its adoption of the Copenhagen Declaration and Programme of Action, the United Nations system has increased its emphasis on the formulation and implementation of environmentally sound mineral development policies and adopted a cross-sectoral, multidisciplinary approach in coordinating and integrating technical cooperation activities into mineral resources development, particularly upstream technical support services.

52. The United Nations system continues to provide technical cooperation assistance and advisory services of a professional, impartial and non-commercial nature in the field of mineral resources, at the request of Member States. However, its ability to do so has been severely curtailed by current budgetary reductions, the financial situation in the United Nations Secretariat and significant changes in the funding of technical cooperation activities.

53. However, within the constraints of the limited resources available, several new areas and issues have assumed significance and are being addressed. The privatization of State-owned enterprises in the minerals sector has given rise to the need for sustainability of the social development functions being performed in the past by such enterprises. Privatization policies have produced lopsided imbalances in the energy sector (with an overemphasis of private-sector presence in energy-sector utilities) and the minerals sector (with a similar overemphasis on large-scale mining and on the extraction for export of a limited range of minerals). This has given rise to a need to address issues of privatization of small-scale mining activities and the need to encourage increased involvement in infrastructure, manufacturing and industry on the part of the private sector which utilizes the minerals and energy resources extracted within the country. It is becoming increasingly evident that privatization, *ipso facto*, is far from a panacea for the environmental consequences of minerals development. Hence the issue of internalizing environmental costs in minerals development activities has resurfaced, with new complexities arising as a result of privatization, deregulation and globalization.

54. Problems of sustaining social development activities funded out of revenues from mining, beyond the life of the mine and the orebody, are assuming increasing significance. Social disintegration, social unrest and internal armed conflicts are resulting from the failure to address the poverty, social and economic deprivation and environmental degradation resulting from mineral development activities, especially in developing countries where ethno-nationalism can tend to fuel fierce and tragic conflicts over resources. Corporations are being assigned increasingly important roles in social development, giving rise to the need to evolve new tripartite relationships between Governments, corporations and communities. The Committee may need to take note of these new issues and concerns and recommend ways to refocus cross-sectoral, multidisciplinary activities and alternative approaches to minerals resource development in an environmentally sustainable manner, given the current budgetary constraints under which United Nations organizations are operating and pursuant to their specific mandates.

Notes

[1] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigenda), resolution 1, annex II.

[2] *Report of the World Summit for Social Development, Copenhagen, 6-12 March 1995* (United Nations publication, Sales No. E.96.IV.8), chap. I, resolution 1, annex I.

[3] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigenda), resolution 1, annex I.